

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 01.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029966**Date Inspected:** 28-Aug-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	Jesus Cayabyab & Bernie Docena			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>

**Bridge No:** 34-0006**Component:** See Below**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Edward Leach was at the American Bridge/Flour (ABF) job site at Yerba Buena Island between the times noted above in order to monitor Smith Emery Quality Control (QC) functions and the in process work being performed by ABF personnel. The following items were observed:

ESW Repair Excavations

RWR201308-004

ESW S-043, Location "T" Face B

The QAI periodically observed ABF welding personnel Mike Jimenez utilizing the Shielded Metal Arc Welding (SMAW) process in the vertical (3G) position with Atom Arc E7018-1 H4R, 5/32" diameter electrode to weld face B for two repair excavations on Electroslag Weld (ESW) weld "T" S-043. Locations are listed as detailed in Request for Weld Repair (RWR) 201308-004 from Ultrasonic Testing indications designated for repair. The repair locations & dimensions are noted as:

Y=4690mm-4990mm, Length=300mm, Width=65mm, Depth=70mm & Y=4100mm-4410mm, Length=310mm, Width=68mm, Depth=70mm.

Prior to welding, Mr. Mike Jimenez was observed preheating the weld to over 350° Fahrenheit with Miller ProHeat 35 heat induction blankets and hand held propylene torch. The welding parameters were verified by QC Inspector Jesus Cayabyab with a Fluke 337 current clamp meter and preheat was verified with temperature indicators per ABF Welding Procedure Specification (WPS)

ABF-WPS-D15-1000-Repair Rev.3. Mr. Cayabyab performed welding parameter verifications at random intervals for the duration of the shift. Welder was observed using proper interpass cleaning methods with a slag hammer, wire wheel and light grinding.

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## WELDING INSPECTION REPORT

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### Tower Skirt Ring Beam East Shaft

The QAI periodically observed ABF welding personnel Rick Chounard at the above location utilizing the Shielded Metal Arc Welding (SMAW) process in the vertical (3G) (3F) & horizontal (2F) positions with Atom Arc E7018-1 HR4, 1/8" diameter electrode to begin in process welding for welds #164 fillets, #165 PJP, #166 CJP. At the beginning of the shift the welder was observed using a hand held propylene torch to preheat the welds and adjacent areas to 150 degree Fahrenheit or above. The QAI also observed ABF previously removed the protective zinc coating from these same areas prior to welding. During the shift the QAI took random readings of the welding amperage observing the measurements of approximately 130 amperes. To perform welding for this location ABF was using Welding Procedure Specifications (WPS) ABF-WPS-D1.5-1020A, Rev1, ABF-WPS-D1.5-F1200A, rev 2 and ABF-D1.5-1160. QC Inspector Bernie Docena was observed monitoring the work at this location on this date.

The welding & workmanship observed on this date appeared to be in general compliance with the contract specifications. The following pictures below detail some of the observations made on this date.



### Summary of Conversations:

General conversations with ABF/JV QC NDT personnel relevant to work and testing performed during this shift.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Leach,Ed	Quality Assurance Inspector
<b>Reviewed By:</b>	Reyes,Danny	QA Reviewer

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